Control Units Ex e, Glass Fiber Reinforced Polyester (GRP)

LCP*.*

- Glass fiber reinforced polyester (GRP) enclosure
- Installation in Zone 1, Zone 2, Zone 21 and Zone 22
- Ex de, Ex ib and Ex tb certified
- Up to 4 operators per enclosure
- Customizable configuration of operators, cable entry quantities and cable gland types as per specification
- Wide range of labels and accessories available
- 2 enclosure size options
- Degree of protection IP66

Control Units Ex e, Glass Fiber Reinforced Polyester (GRP)

Function

The versatile control units of the LCP series are available as standard off-the-shelf control units or can be flexibly equipped with a great variety of operators, labels, cable glands and accessories. The comprehensive range of control functions allow the configuration of each control unit to exactly meet any application requirements and ensure optimal space efficiency.
The enclosures are manufactured from glass fiber reinforced polyester.
Durable materials and components of high quality allow the control units to be used in harsh ambient conditions.

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Type Code

Series

LC control unit

Material

P glass fiber reinforced polyester (GRP)

Enclosure tpye / quantity of operating elements

1 ... 4 1 through 4 operating elements, see dimensions data table

7 1 window for ammeter/voltmeter

8 1 window for ammeter/voltmeter and 1 operating element

9 1 window for ammeter/voltmeter and 2 operating elements

Function 1

xxxx see operating elements type codes

Function 2

xxxx see operating elements type codes

Function 3

xxxx see operating elements type codes

Function 4

xxxx see operating elements type codes

Entry configuration / cable glands

A ... M standard entry configurations, see cable entries table

X no entries

Z customized entries

Type of explosion protection

no character indicates Ex e (former versions)

1 Ex db eb mb, Ex tb

3 Ex ib, Ex tb

5 Ex db eb ib mb, Ex tb

LC	P	2	.N1OX	.ERMZP			.B	.1	Example

Example: Control Unit, GRP enclosure for two control functions. Upper function: small control switch 2 position with left OFF, labeled “0 - I”, base-mounted contact block with 2x NO contacts, no accessories. Lower function: pull-to-release mushroom button, red, labeled “NOT HALT EMERGENCY STOP”, base-mounted contact block with 1x NO / 1x NC contacts, emergency stop shroud, plastic, padlockable. Cable entry configuration: top face one stopping plug M20 polyamide, bottom face one cable gland M20 for non-armored cables, polyamide. Type of protection: Ex db eb mb and Ex tb.

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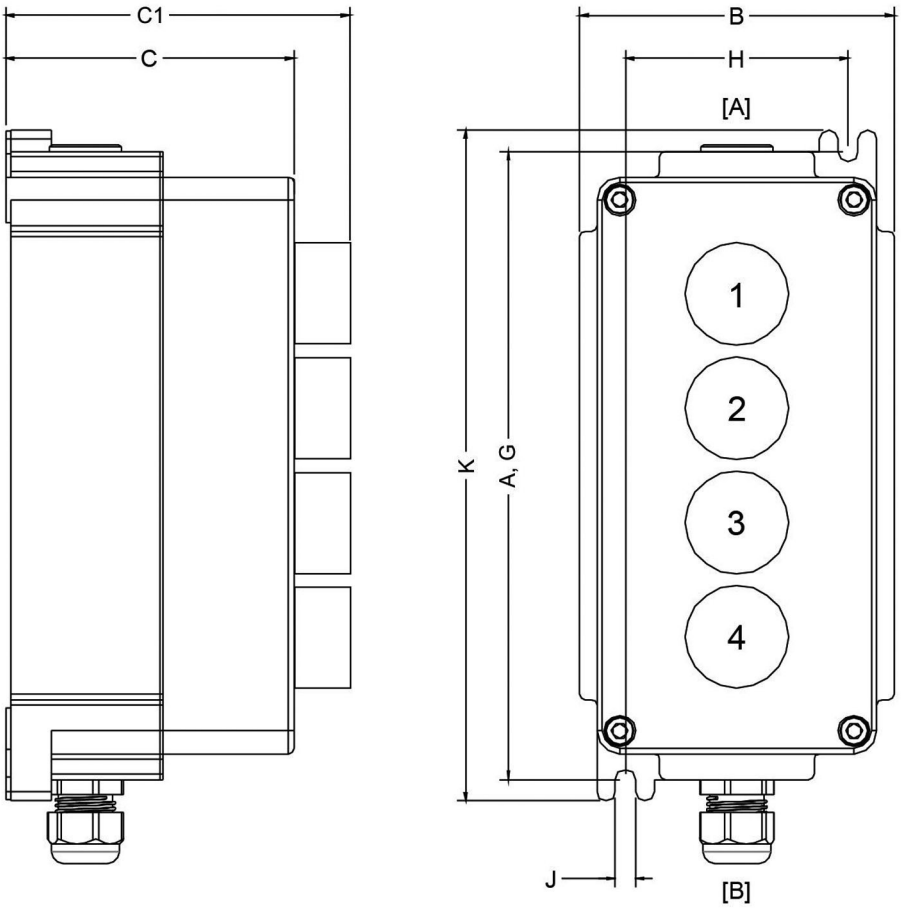
Dimensions



Dimension values see data table.
Image and drawing are generic for this device type and may deviate from the specific variant.

Legend	
A	Height
B	Width
C	Depth
C1	Depth with operating element
G	Mounting holes distance, vertical
H	Mounting holes distance, horizontal
J	Mounting holes diameter
K	Maximum external dimension with mounting brackets
[A] ... [B]	Cable entry faces

Technical Data

Electrical specifications	
Operating voltage	250 V max.
Operating current	16 A max.
Terminal capacity	2.5 mm²
Terminal torque	0.8 Nm
Function	see data table
Mechanical specifications	
Enclosure range	LCP

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Technical Data

Enclosure cover		fully detachable
Cover fixing		stainless steel socket cap head screws
Screws		M6
Number		4
Tightening torque		2 Nm
Cover seal		one piece closed cell silicone
Degree of protection		IP66
Cable entry		cable glands as per specification
Number of cable entries		see data table
Defined entry area		face A and face B
Material		
Enclosure		carbon loaded, antistatic glass fiber reinforced polyester (GRP)
Finish		inherent color black
Mass		see data table
Dimensions		see data table
Tightening torque		
Nut torque at enclosure (SW1)		see datasheets of cable glands
Mounting		see data table
Grounding		2.5 mm^2 grounding terminal
Ambient conditions		
Ambient temperature		-40 ... 55 °C (-40 ... 131 °F) -50 °C (-58 °F) on request
Data for application in connection with hazardous areas		
EU-type examination certificate		CML 16 ATEX 3009X
Marking		Ⓔx II 2 GD Ex db eb mb IIC T* Gb Ex ib IIC T* Gb Ex db eb ib mb IIC T* Gb Ex tb IIIC T** °C Db T6/T80 °C @ Ta +40 °C T4/T130 °C @ Ta +55 °C
International approvals		
IECEx approval		IECEx CML 16.0008X
EAC approval		RU C-DE.BH02.B.00016/18
IA approval		MASC S/18-0003X
Conformity		
Degree of protection		EN 60529
Usage category		IEC / EN 60947
CE marking		0080 or 0102, see type label
General information		
Ordering information		For standard configured units please see pdf data sheet. For configuration details please contact Customer Service.
Supplementary information		EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.
Accessories		
Optional accessories		engraved traffolyte tag label engraved AISI 316L stainless steel tag label color in-fill stainless steel tag label
Indicators/operating means		
Control elements		small footprint max. 4 see data table all NC contacts have a direct opening action for emergency stop functions

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Dimensions and Enclosure Details

Enclosure type	Operating elements size and quantity	External dimensions [mm]					Mounting [mm]			Mass approx. [kg]
		A	B	C	C1	K	G	H	J	
LCP1.*	1x small / 1x large	110	110	101	148	125	110	78	7	0.9
LCP2.*	2x small	220	110	101	148	235	220	78	7	2
LCP2.4P.*	1x small / 1x large (4pole)	220	110	101	148	235	220	78	7	2
LCP3.*	3x small / 3x large	220	110	101	148	235	220	78	7	2
LCP4.*	4x small	220	110	101	148	235	220	78	7	2
LCP7.*	1x ammeter or voltmeter	220	110	101	148	235	220	78	7	2
LCP8.*	1x ammeter and 1x small	220	110	101	148	235	220	78	7	2
LCP9.*	1x ammeter and 2x small	220	110	101	148	235	220	78	7	2

Dimension C1 is maximum, it will differ according to operating elements configuration

Cable Entries max. Quantity per Size

Type Code	Cable entries Face A			Cable entries Face B					
	M20 qty.	M20 type	M20 clamping range	M20 qty.	M20 type	M20 clamping range	M25 qty.	M25 type	M25 clamping range
.A.	-	-	-	1	CG.PEDS.M20.*	6 ... 12 mm	-	-	-
.B.	1	SP.PE.M20.*	-	1	CG.PEDS.M20.*	6 ... 12 mm	-	-	-
.F.	-	-	-	-	-	-	1	CG.PEDS.M25.*	10 ... 18 mm

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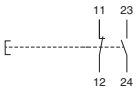
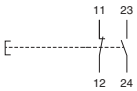
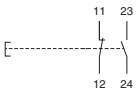
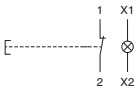
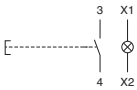
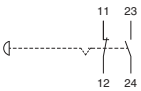
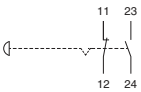
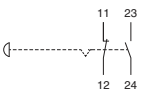
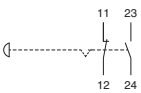
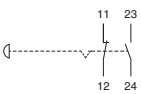
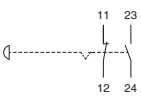
Standard Variants

Type	Function	Color	Labeling	Operator action	Number of poles	Contact configu-ration	Switching configu-ration	Electrical specifi-cation	Switching diagram	Image example
LCP1. PRMX.*	pushbutton	red	0	spring return	2	1x NO / 1x NC	-	(1)		
LCP1. PGMX.*	pushbutton	green	I	spring return	2	1x NO / 1x NC	-	(1)		
LCP1. DMMX.*	double pushbutton	red / green	0 - I	spring return	2	1x NO / 1x NC	-	(1)		
LCP1. IRJX.*	illuminated pushbutton	red	-	spring return	1	1x NC	-	(2)		
LCP1. IGIX.*	illuminated pushbutton	green	-	spring return	1	1x NO	-	(2)		
LCP1. ERMX.*	mushroom button	red	(5)	latching, pull to release	2	1x NO / 1x NC	-	(1)		
LCP1. ERMZA.*	mushroom button, with plastic lid	red	(5)	latching, pull to release	2	1x NO / 1x NC	-	(1)		
LCP1. ERMZP.*	mushroom button, with plastic shroud, padlockable	red	(5)	latching, pull to release	2	1x NO / 1x NC	-	(1)		
LCP1. E4MX.*	mushroom button 40 mm	red	-	latching, twist to release	2	1x NO / 1x NC	-	(1)		
LCP1. E5MX.*	mushroom button 55 mm	red	-	latching, twist to release	2	1x NO / 1x NC	-	(1)		
LCP1. JRMX.*	mushroom button, lockable	red	-	latching, key release	2	1x NO / 1x NC	-	(1)		

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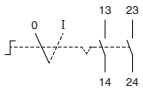
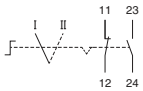
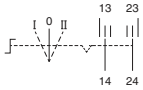
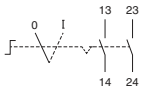
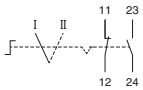
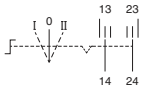
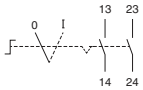
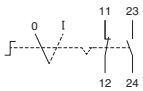
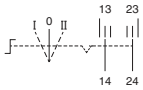
Standard Variants

Type	Function	Color	Labeling	Operator action	Number of poles	Contact configu-ration	Switching configu-ration	Electrical specifi-cation	Switching diagram	Image example
LCP1. N1OX.*	control switch, small	black	0 - I	engage - engage	2	2x NO	2 position changeover with left OFF	(1)		
LCP1. N2MX.*	control switch, small	black	I - II	engage - engage	2	1x NO / 1x NC	2 position changeover	(1)		
LCP1. N3OX.*	control switch, small	black	I - 0 - II	engage - engage - engage	2	2x NO	3 position changeover with center OFF	(1)		
LCP1. S1OX.*	control switch, large, with shroud, padlockable in '0'	black	0 - I	engage - engage	2	2x NO	2 position changeover with left OFF	(1)		
LCP1. S2MX.*	control switch, large, with shroud	black	I - II	engage - engage	2	1x NO / 1x NC	2 position changeover	(1)		
LCP1. S3OX.*	control switch, large, with shroud, padlockable in '0'	black	I - 0 - II	engage - engage - engage	2	2x NO	3 position changeover with center OFF	(1)		
LCP1. K1OX.*	key switch	black / silver	0 - I	engage - engage	2	2x NO	2 position changeover with left OFF	(1)		
LCP1. K1MX.*	key switch	black / silver	0 - I	engage - engage	2	1x NO / 1x NC	2 position changeover with left OFF	(1)		
LCP1. K3OX.*	key switch	black / silver	I - 0 - II	engage - engage - engage	2	2x NO	3 position changeover with center OFF	(1)		
LCP1. LRLX.*	LED indicator	red	-	-	-	-	-	(3)		
LCP1. LGLX.*	LED indicator	green	-	-	-	-	-	(3)		

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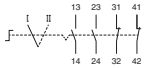
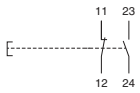
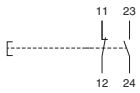
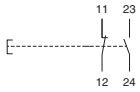
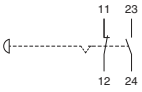
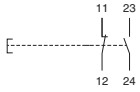
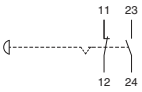
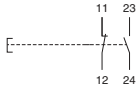
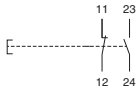
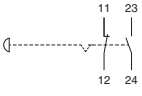
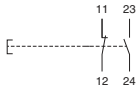
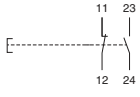
Standard Variants

Type	Function	Color	Labeling	Operator action	Number of poles	Contact configu-ration	Switching configu-ration	Electrical specifi-cation	Switching diagram	Image example
LCP2.4P. S201X.*	control switch, large, with shroud	black	I - II	engage - engage	4	2x NO / 2x NC	2 position changeover	(1)		
LCP2. PGMX. PRMX.*	pushbutton	green	I	spring return	2	1x NO / 1x NCv	-	(1)		
	pushbutton	red	0	spring return	2	1x NO / 1x NC	-	(1)		
LCP2. PGMX. ERMX.*	pushbutton	green	I	spring return	2	1x NO / 1x NC	-	(1)		
	mushroom button	red	(5)	latching, pull to release	2	1x NO / 1x NC	-	(1)		
LCP2. PGMX. JRMX.*	pushbutton	green	I	spring return	2	1x NO / 1x NC	-	(1)		
	mushroom button, lockable	red	-	latching, key release	2	1x NO / 1x NC	-	(1)		
LCP3. PGMX. PRMX. ERMX.*	pushbutton	green	I	spring return	2	1x NO / 1x NC	-	(1)		
	pushbutton	red	0	spring return	2	1x NO / 1x NC	-	(1)		
	mushroom button	red	(5)	latching, pull to release	2	1x NO / 1x NC	-	(1)		
LCP3. LRLX. PGMX. PRMX.*	LED indicator	red	-	-	-	-	-	(3)		
	pushbutton	green	I	spring return	2	1x NO / 1x NC	-	(1)		
	pushbutton	red	O	spring return	2	1x NO / 1x NC	-	(1)		

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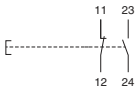
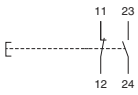
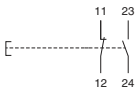
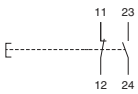
Standard Variants

Type	Function	Color	Labeling	Operator action	Number of poles	Contact configu-ration	Switching configu-ration	Electrical specifi-cation	Switching diagram	Image example
LCP3. LGLX. PGMX. PRMX.*	LED indicator	green	-	-	-	-	-	(3)		
	pushbutton	green	I	spring return	2	1x NO / 1x NC	-	(1)		
	pushbutton	red	O	spring return	2	1x NO / 1x NC	-	(1)		
LCP3. LRLX. DMMX. JRMX.*	LED indicator	red	-	-	-	-	-	(3)		
	double pushbutton	red / green	0 - I	spring return	2	1x NO / 1x NC	-	(1)		
	mushroom button, lockable	red	-	latching , key release	2	1x NO / 1x NC	-	(1)		
LCP3. LRLX. LOLX. LGLX.*	LED indicator	red	-	-	-	-	-	(3)		
	LED indicator	amber	-	-	-	-	-	(3)		
	LED indicator	green	-	-	-	-	-	(3)		
LCP7. WBAASA.*	ammeter 1 A	-	scale 0 ... 1 / 5 A	-	-	-	-	(4)		
LCP8. WBAASA. N5MX.*	ammeter 1 A	-	scale 0 ... 1 / 5 A	-	-	-	-	(4)		
	control switch, small	black	0 - I - II	engage - engage - engage	2	1x NO / 1x NC	3 position changeover with left OFF	(1)		

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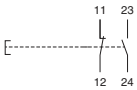
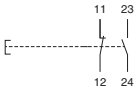
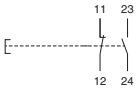
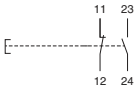
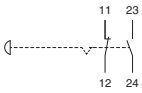
Standard Variants

Type	Function	Color	Labeling	Operator action	Number of poles	Contact configu-ration	Switching configu-ration	Electrical specifi-cation	Switching diagram	Image example
LCP9. WBAASA. PGMX. PRMX.*	ammeter 1 A	-	scale 0 ... 1 / 5 A	-	-	-	-	(4)		
	pushbutton	green	I	spring return	2	1x NO / 1x NC	-	(1)		
	pushbutton	red	O	spring return	2	1x NO / 1x NC	-	(1)		
LCP4. LRLX. PGMX. PRMX. ERMX.*	LED indicator	red	-	-	-	-	-	(3)		
	pushbutton	green	I	spring return	2	1x NO / 1x NC	-	(1)		
	pushbutton	red	O	spring return	2	1x NO / 1x NC	-	(1)		
	mushroom button	red	(5)	latching, pull to release	2	1x NO / 1x NC	-	(1)		

Electrical Specifications and Labeling

Reference in standard variants	Usage category	Rated operating voltage	Rated operating current
(1)	AC12 - 12 ... 250 V AC - 16 A AC15 - 12 ... 250 V AC - 10 A DC13 - 12 ... 110 V DC - 1 A DC13 - 12 ... 24 V DC - 1A	-	-
(2)	AC15 - 12 ... 250 V AC - 10 A DC13 - 12 ... 24 V DC - 1 A	-	-
(3)	-	12 ... 250 V AC 12 ... 24 V DC	-
(4)	-	690 V AC	1 A
	Labeling		
(5)	EMERGENCY STOP / NOT HALT		

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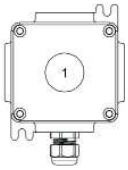
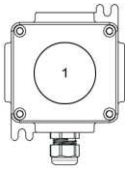
Configurations - Types of Operating Elements see Overleaf

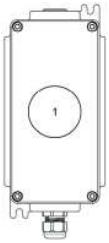
Configurations with 1 function



LCP1.*
maximum configuration (1)



LCP1.*
large operator 2 pole (2)



LCP2.4P.*
large operator 4 pole (3)

LCP7.*
window (4)

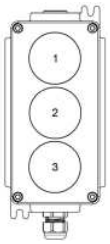
Configurations with 2 functions

LCP2.*
maximum configuration (1)

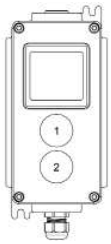
LCP8.*
window + 1 small operator (4)

Configurations with 3 functions

LCP3.*
maximum configuration (1)

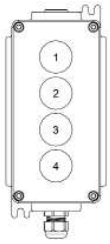


LCP3.*
large operator 2 pole (2)



LCP9.*
window + 2 small operators (4)

Configurations with 4 functions



LCP4.*
maximum configuration (1)

(1) Small operators with 2 pole contact blocks
Small operators include all pushbuttons, small switching actuators, LED indicators and potentiometers
(2) Large switching actuators and all operators fitted with 2 pole contact modules, protective lid or padlockable shroud
(3) Small and large switching actuators and all operators fitted with 4 pole contact modules, protective lid or padlockable shroud
(4) Viewing windows with ammeter or voltmeter in combination with operating elements

Note: the use of label holders depends on operator configuration
All NC contacts have a direct opening action for emergency stop functions
For further configurations please contact Pepperl+Fuchs

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Pushbuttons and Emergency Stops

Pushbuttons Actuator Heads

Type	Color	Labeling	Image
CFP.PA	red	none	
CFP.PR	red	0	
CFP.PC	red	STOP	
CFP.PD	red	OFF	
CFP.PE	green	none	
CFP.PG	green	I	
CFP.PI	green	II	
CFP.PF	green	START	
CFP.PH	green	ON	
CFP.PY	yellow	none	
CFP.PO	amber	none	
CFP.PW	white	none	
CFP.PB	blue	none	
CFP.PJ	blue	RESET	
CFP.PK	black	none	
CFP.PL	black	0	
CFP.PN	black	I	
CFP.PP	black	II	
CFP.PQ	black	III	
CFP.PT	black	IV	
CFP.PU	black	arrow up	
CFP.PV	black	arrow down	
CFP.PZ*	see individual datasheets		

Actuator Heads - Technical Data

Mechanical specifications	
Dimensions	see data table
Mounting	use with base-mounted and lid-mounted contact modules
Degree of protection	IP66
Mass	see data table
Material	
Housing	Polyamide (PA)
Finish	inherent color black
Washer gasket	silicone
Ambient conditions	
Ambient temperature	-40 ... 55 °C (-40 ... 131 °F)
Service temperature	-40 ... 65 °C (-40 ... 149 °F)
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	Ex II 2 GD Ex e IIC Gb Ex tb IIIC Db
International approvals	
IECEx approval	IECEx CML 16.0114U
Conformity	
Degree of protection	EN 60529
CE marking	0102
General information	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.
Enclosure type	LC* FXL*.CS GR.CS*

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Pushbuttons and Emergency Stops

Emergency Stops Actuator Heads

Type	Function	Color	Labeling	Operator action	Actuator head diameter	Switching diagram	Image
CFP.MRL	mushroom button	red	PULL TO RELEASE	latching, pull to release	40 mm		
CFP.ER	mushroom button	red	EMERGENCY STOP / NOT HALT	latching, pull to release	40 mm		
CFP.E6	mushroom button	red	EMERGENCY STOP / NOT AUS	latching, pull to release	40 mm		
CFP.E4	mushroom button	red	none	latching, twist to release	40 mm		
CFP.E5	mushroom button	red	none	latching, twist to release	55 mm		
CFP.JR	mushroom button	red	none	latching, key release	39 mm		

Other Pushbuttons Actuator Heads

Type	Function	Color	Labeling	Operator action	Actuator head diameter	Switching diagram	Image
CFP.DM	pushbutton	red / green	0 - I	spring return	70 mm x 39 mm		
CFP.MK	mushroom button	black	none	spring return	39 mm		
CFP.MR	mushroom button	red	none	spring return	39 mm		
CFP.MG	mushroom button	green	none	spring return	39 mm		

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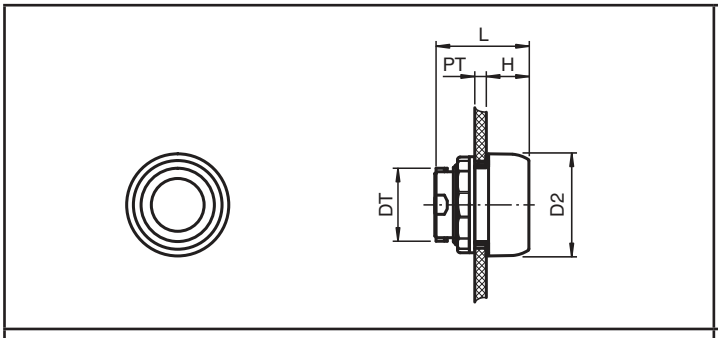
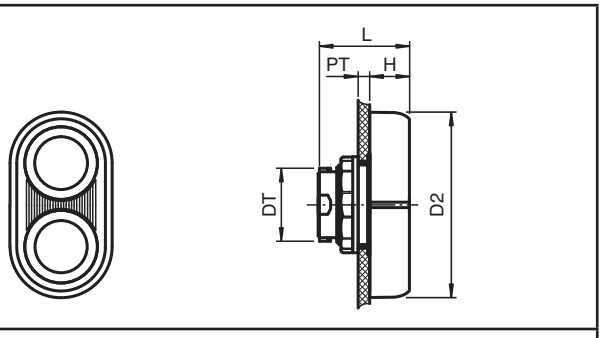
Pushbuttons and Emergency Stops

Pushbuttons and Emergency Stops - Dimensions

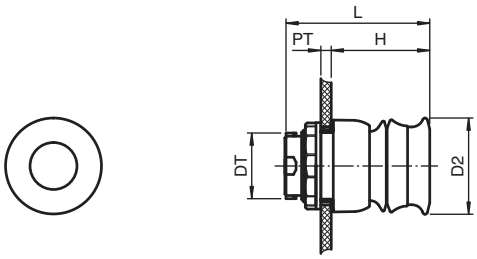
Type	Function	Actuator head diameter [mm]	Panel wall thickness [mm]	Diameter thru-hole [mm]	Length outside enclosure [mm]	Total length [mm]	Mass [g]
		D2	PT	DT	H	L	
CFP.P*	pushbutton	39	1 ... 6	30.6	15.5	35.4	25
CFP.DM*	double pushbutton	70 x 39	1 ... 6	30.6	15.5	35.4	38
CFP.ER	emergency stop	40	1 ... 6	30.6	41.2	60.7	52
CFP.E4	emergency stop	40	1 ... 6	30.6	41.2	60.7	52
CFP.E5	emergency stop	55	1 ... 6	30.6	41.2	60.7	58
CFP.JR	key release mushroom button	39	1 ... 6	30.6	49.5	70	65
CFP.M*	mushroom button	39	1 ... 6	30.6	41.2	60.7	46



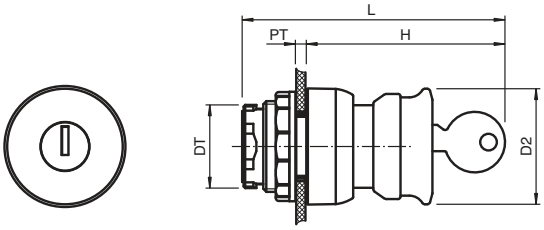
CFP.P*



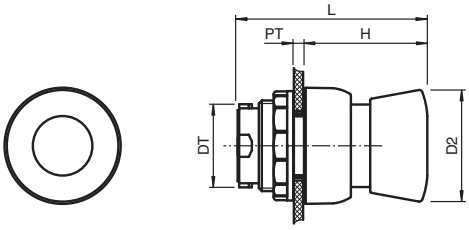
CFP.DM*



CFP.MRL, CFP.E*



CFP.J*



CFP.MG, CFP.MK, CFP.MR

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Pushbuttons and Emergency Stops

Contact Blocks

Type	Mounting	Number of poles	Contact configuration	Switching diagram see overview	Image
CFP.M	base-mounted	2	1x NO / 1x NC		
CFP.C	base-mounted	2	2x NC		
CFP.O	base-mounted	2	2x NO		

Contact Blocks - Technical Data

Electrical specifications	
Operating voltage	250 V max.
Operating current	16 A max.
Terminal capacity	2.5 mm²
Terminal torque	0.8 Nm
Usage category	AC12: 12 ... 250 V AC - 16 A AC15: 12 ... 250 V AC - 10 A DC13: 12 ... 110 V DC - 1 A DC13: 12 ... 24 V DC - 1 A
Mechanical specifications	
Mechanical life	1000000 switching operations
Degree of protection	IP20
Material	
Housing	Polyamide (PA)
Ambient conditions	
Service temperature	-40 ... 90 °C (-40 ... 194 °F)
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	Ex II 2 G Ex de IIC Gb

Contact Blocks - Technical Data continued

International approvals	
IECEx approval	IECEx CML 16.0114U
Conformity	
Degree of protection	EN 60529
Usage category	IEC / EN 60947
CE marking	0102
General information	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.

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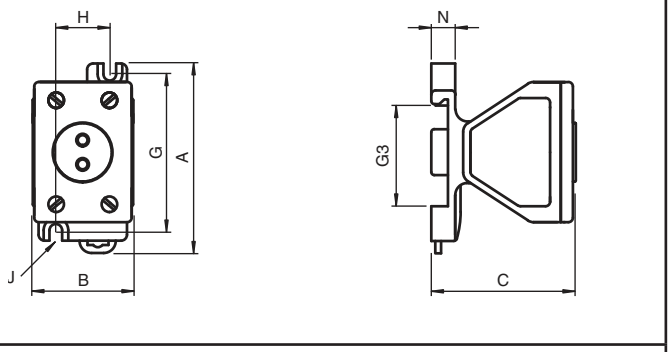
Pushbuttons and Emergency Stops

Contact Blocks - Dimensions

Mounting	External dimension [mm]			Mounting holes [mm]			Mounting brackets [mm]	DIN mounting rail receptacle [mm]	Mass [g]	Enclosure type
	A	B	C	G	H	Diam. J	N	G3		
base-mounted	63	33.4	50	52	18	4.2	8	35.6	68	LC* GR.CS*



base-mounted

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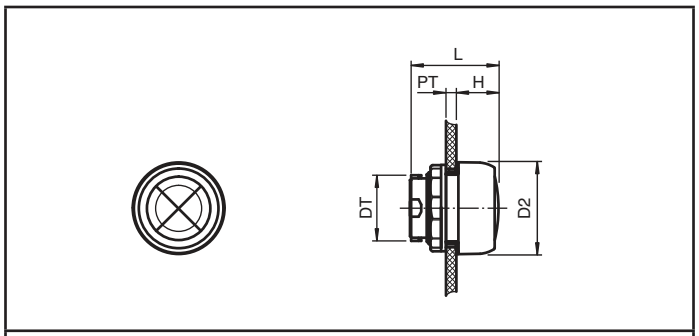
Illuminated Pushbuttons

Illuminated Pushbuttons Actuator Heads

Type	Lens color	Operator action	Switching diagram	Image
CFP.IR	red	spring return		
CFP.IG	green	spring return		
CFP.IO	amber	spring return		
CFP.IW	white	spring return		
CFP.IB	blue	spring return		



CFP.I*

Actuator Heads - Technical Data

Mechanical specifications	
Degree of protection	IP66
Material	
Housing	Polyamide (PA)
Finish	inherent color black
Washer gasket	silicone
Ambient conditions	
Ambient temperature	-40 ... 55 °C (-40 ... 131 °F)
Service temperature	-40 ... 65 °C (-40 ... 149 °F)
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	Ex II 2 GD Ex e IIC Gb Ex tb IIIC Db
International approvals	
IECEx approval	IECEx CML 16.0114U
Conformity	
Degree of protection	EN 60529
CE marking	0102
General information	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.

Illuminated Pushbuttons Actuator Heads - Dimensions

Actuator head diameter [mm]	Panel wall thickness [mm]	Diameter thru-hole [mm]	Length outside enclosure [mm]	Total length [mm]	Mass [g]	Mounting	Enclosure type
D2	PT	DT	H	L			
39	1 ... 6	30.6	17.5	36.8	21	use with base-mounted and cover-mounted contact modules	LC* FXL*.CS GR.CS*

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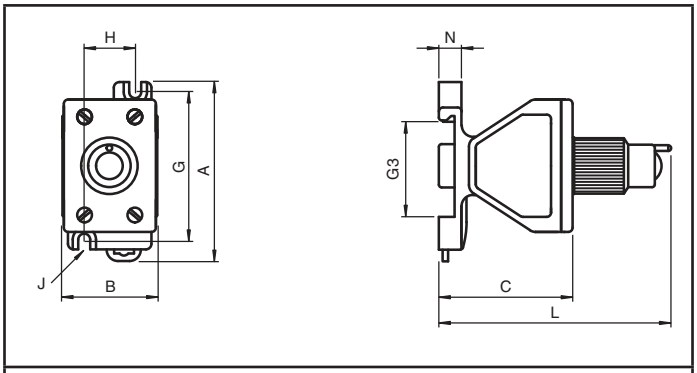
Illuminated Pushbuttons

LED Contact Modules

Type	Mounting	Operating voltage [max. V]	Number of poles	Contact configuration	Switching diagram	Image
CFP.I	base-mounted	250	1	1x NO		
CFP.J	base-mounted	250	1	1x NC		

LED Contact Modules - Dimensions

Mounting	External dimension [mm]				Mounting holes [mm]			Mounting brackets [mm]	DIN rail receptacle [mm]	Mass [g]	Enclosure type
	A	B	C	L	G	H	Diam. J	N	G3		
base-mounted	63	33.4	47	82	52	18	4.2	8	35.6	72	LC* GR.CS*



base-mounted

LED Contact Modules - Technical Data

Electrical specifications	
Operating voltage	250 V max.
Operating current	10 A max.
Power consumption	1 W
Terminal capacity	2.5 mm²
Terminal torque	0.8 Nm
Usage category	AC15: 12 ... 250 V AC - 10 A DC13: 12 ... 24 V DC - 1 A
Mechanical specifications	
Mechanical life	1000000 switching operations
Degree of protection	IP20
Material	
Housing	Polyamide (PA)
Ambient conditions	
Service temperature	-55 ... 85 °C (-67 ... 185 °F)
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	Ex II 2 G Ex de IIC Gb
International approvals	
IECEx approval	IECEx CML 16.0114U
Conformity	
Degree of protection	EN 60529
Usage category	IEC / EN 60947-3
CE marking	0102

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Control Switches Actuator Heads, for use with LCP* and LCS*

Control Switch Actuator Heads

Type	Function	Dia-meter [mm]	Switching configuration	Switching diagram	Opera-tor action	Labeling	Lock-able	Image
CFP.N1	rotary actuator	39	2 position changeover with left OFF		L - L	0 - I	-	
CFP.N2	rotary actuator	39	2 position changeover		L - L	I - II	-	
CFP.N3	rotary actuator	39	3 position changeover with center OFF		L - L - L	I - 0 - II	-	
CFP.N3S	rotary actuator	39	3 position changeover with center OFF		S - L - S	I - 0 - II	-	
CFP.N5	rotary actuator	39	3 position changeover with left OFF		L - L - L	0 - I - II	-	
CFP.S1	rotary actuator	60	2 position changeover with left OFF		L - L	0 - I	yes	
CFP.S2	rotary actuator	60	2 position changeover		L - L	I - II	yes	
CFP.S3	rotary actuator	60	3 position changeover with center OFF		L - L - L	I - 0 - II	yes	
CFP.S3S	rotary actuator	60	3 position changeover with center OFF		S - L - S	I - 0 - II	yes	
CFP.S5	rotary actuator	60	3 position changeover with left OFF		L - L - L	0 - I - II	yes	
CFP.K1	key switch rotary actuator	39	2 position changeover with left OFF		L - L	0 - I	yes	
CFP.K1S	key switch rotary actuator	39	2 position changeover with left OFF		L - S	0 - I	yes	
CFP.K3	key switch rotary actuator	39	3 position changeover with center OFF		L - L - L	I - 0 - II	yes	
CFP.K3S	key switch rotary actuator	39	3 position changeover with center OFF		S - L - S	I - 0 - II	yes	

Operator action: L = latching, S = spring return

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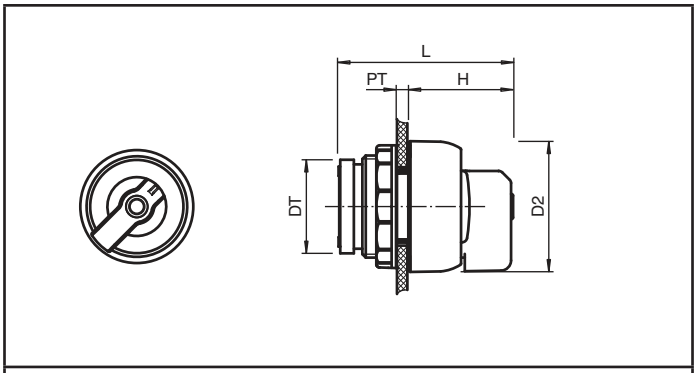
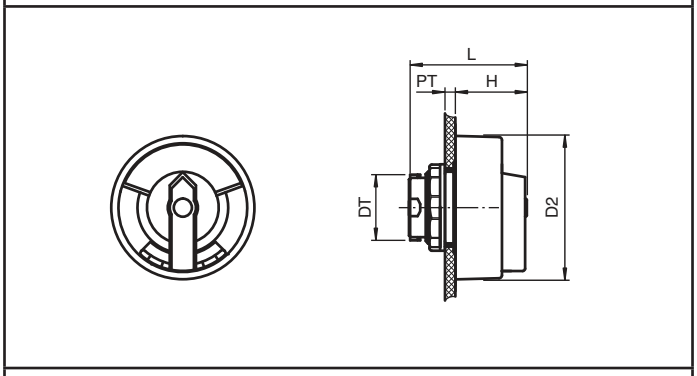
Control Switches Actuator Heads

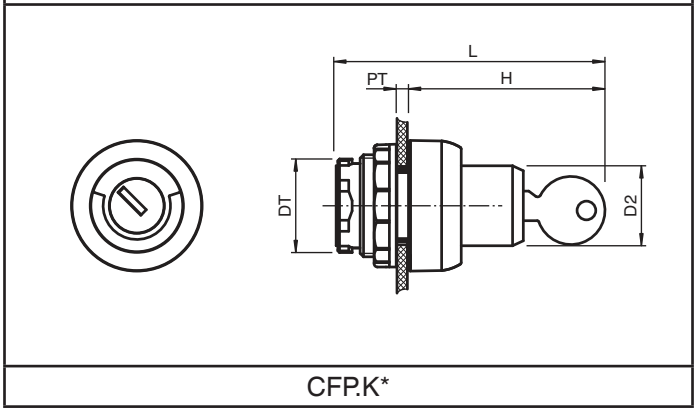
Actuator Heads - Dimensions



CFP.N*



CFP.S*



CFP.K*

Actuator Heads - Technical Data

Mechanical specifications	
Dimensions	see data table
Mounting	use with base-mounted and lid-mounted contact modules
Degree of protection	IP66
Mass	see data table
Material	
Housing	Polyamide (PA)
Finish	inherent color black
Washer gasket	silicone
Ambient conditions	
Ambient temperature	-40 ... 55 °C (-40 ... 131 °F)
Service temperature	-40 ... 65 °C (-40 ... 149 °F)
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	Ex II 2 GD Ex e IIC Gb Ex tb IIIC Db
International approvals	
IECEx approval	IECEx CML 16.0114U
Conformity	
Degree of protection	EN 60529
CE marking	0102
General information	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.

Type	Actuator head diameter [mm]	Panel wall thickness [mm]	Diameter thru-hole [mm]	Length outside enclosure [mm]	Total length [mm]	Mass [g]	Image example
	D2	PT	DT	H	L		
CFP.N*	39	1 ... 6	30.6	30.5	50.5	30	
CFP.S*	60	1 ... 6	30.6	30.5	50.5	46	
CFP.K*	39	1 ... 6	30.6	49.5	70	46	

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Control Switches, 2 Pole Contact Blocks, for use with LCP* and LCS*

Combination of 2 Pole Contact Blocks and Actuator Heads

Actuator head function	Actuator head diameter [mm]	Switching configuration	Contact block	Contacts	Switching diagram see overview	Operator action	Labeling	Lockable	Actuator type
rotary actuator	39	2 position changeover with left OFF	O	2x NO	(1)	L - L	0 - I	-	N1
rotary actuator	39	2 position changeover	M	1x NO / 1x NC	(2)	L - L	I - II	-	N2
rotary actuator	39	3 position changeover with center OFF	O	2x NO	(4)	L - L - L	I - 0 - II	-	N3
rotary actuator	39	3 position changeover with center OFF	O	2x NO	(4)	S - L - S	I - 0 - II	-	N3S
rotary actuator	39	3 position changeover with left OFF	M	1x NO / 1x NC	(3)	L - L - L	0 - I - II	-	N5
rotary actuator	60	2 position changeover with left OFF	O	2x NO	(1)	L - L	0 - I	yes	S1
rotary actuator	60	2 position changeover	M	1x NO / 1x NC	(2)	L - L	I - II	-	S2
rotary actuator	60	3 position changeover with center OFF	O	2x NO	(4)	L - L - L	I - 0 - II	yes	S3
rotary actuator	60	3 position changeover with center OFF	O	2x NO	(4)	S - L - S	I - 0 - II	yes	S3S
rotary actuator	60	3 position changeover with left OFF	M	1x NO / 1x NC	(3)	L - L - L	0 - I - II	yes	S5
key switch rotary actuator	39	2 position changeover with left OFF	O	2x NO	(1)	L - L	0 - I	yes	K1
key switch rotary actuator	39	2 position changeover with left OFF	O	2x NO	(1)	L - S	0 - I	yes	K1S
key switch rotary actuator	39	3 position changeover with center OFF	O	2x NO	(4)	L - L - L	I - 0 - II	yes	K3
key switch rotary actuator	39	3 position changeover with center OFF	O	2x NO	(4)	S - L - S	I - 0 - II	yes	K3S

Operator action: L = latching, S = spring return

Contact Blocks

Type	Mounting	Number of poles	Contact configuration	Switching diagram	Image
CFP.M	base-mounted	2	1x NO / 1x NC		
CFP.C	base-mounted	2	2x NC		
CFP.O	base-mounted	2	2x NO		

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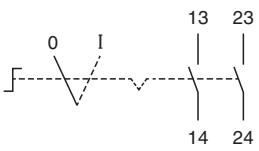
Control Switches, 2 Pole Contact Blocks, for use with LCP* and LCS*

Switching Diagrams

(1)



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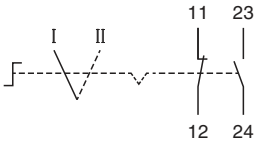
0		
I	X	X
	14	24

(2)



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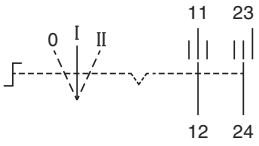
I	X	
II		X
	12	24

(3)



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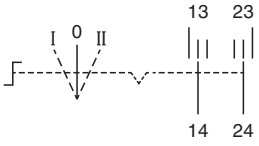
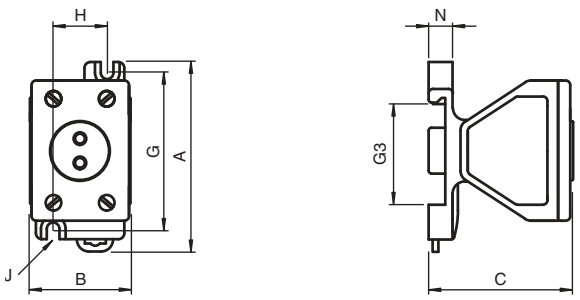
0		
I	X	
II		X
	12	24

(4)



	13	23
I	X	
0		
II		X
	14	24



base-mounted

Contact Blocks - Technical Data

Electrical specifications	
Operating voltage	250 V max.
Operating current	16 A max.
Terminal capacity	2.5 mm²
Terminal torque	0.8 Nm
Usage category	AC12: 12 ... 250 V AC - 16 A AC15: 12 ... 250 V AC - 10 A DC13: 12 ... 110 V DC - 1 A DC13: 12 ... 24 V DC - 1 A
Mechanical specifications	
Mechanical life	1000000 switching operations
Degree of protection	IP20
Material	
Housing	Polyamide (PA)
Ambient conditions	
Service temperature	-40 ... 90 °C (-40 ... 194 °F)
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	Ex II 2 G Ex de IIC Gb
International approvals	
IECEx approval	IECEx CML 16.0114U
Conformity	
Degree of protection	EN 60529
Usage category	IEC / EN 60947
CE marking	0102
General information	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.

Contact Blocks - Dimensions

Mounting	External dimension [mm]			Mounting holes [mm]			Mounting brackets [mm]	DIN mounting rail receptacle [mm]	Mass [g]	Enclosure type
	A	B	C	G	H	Diam. J	N	G3		
base-mounted	63	33.4	50	52	18	4.2	8	35.6	68	LC*

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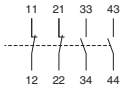
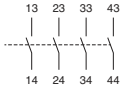
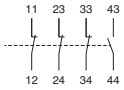
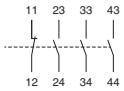
Control Switches, 4 Pole Contact Blocks, for use with LCP* and LCS*

Combination of 4 Pole Contact Blocks and Actuator Heads

Actuator head function	Actuator head diameter [mm]	Switching configuration	Contact block	Contacts	Switching diagram see overview	Operator action	Labeling	Lockable	Actuator type
rotary actuator	60	2 position changeover with left OFF	03	4x NO	(5)	L - L	0 - I	yes	S1
rotary actuator	60	2 position changeover	01	2x NO / 2x NC	(6)	L - L	I - II	-	S2
rotary actuator	60	3 position changeover with center OFF	03	4x NO	(7)	L - L - L	I - 0 - II	yes	S3
rotary actuator	60	3 position changeover with center OFF	03	4x NO	(7)	S - L - S	I - 0 - II	yes	S3S

Operator action: L = latching, S = spring return

Contact Blocks

Type	Mounting	Number of poles	Contact configuration	Switching diagram	Image
CFP.01	base-mounted	4	2x NO / 2x NC		
CFP.02	base-mounted	4	4x NC		
CFP.03	base-mounted	4	4x NO		
CFP.04	base-mounted	4	1x NO / 3x NC		
CFP.05	base-mounted	4	3x NO / 1x NC		

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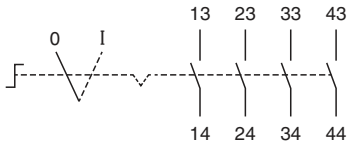
Control Switches, 4 Pole Contact Blocks, for use with LCP* and LCS*

Switching Diagrams

(5)



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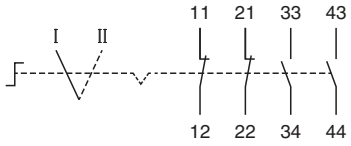
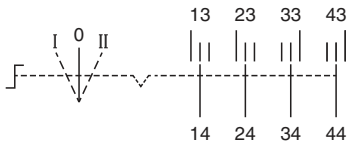
0				
I	X	X	X	X
	14	24	34	44

(6)

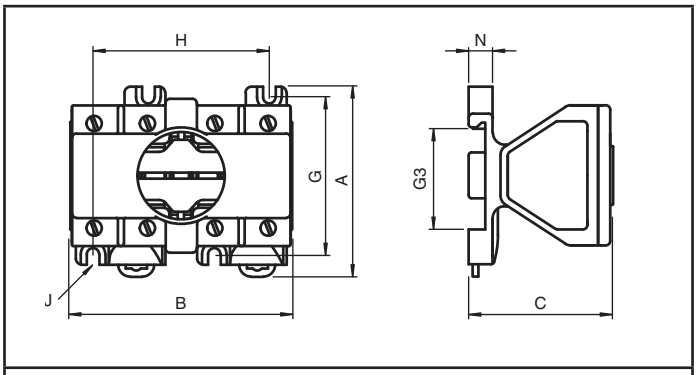


	11	21	33	43
I	X	X		
II			X	X
	12	22	34	44

(7)



	13	23	33	43
I	X	X		
0				
II			X	X
	14	24	34	44



base-mounted

Contact Blocks - Technical Data

Electrical specifications	
Operating voltage	250 V max.
Operating current	16 A max.
Terminal capacity	2.5 mm²
Terminal torque	0.8 Nm
Usage category	AC12: 12 ... 250 V AC - 16 A AC15: 12 ... 250 V AC - 10 A DC13: 12 ... 110 V DC - 1 A DC13: 12 ... 24 V DC - 1 A
Mechanical specifications	
Mechanical life	1000000 switching operations
Degree of protection	IP20
Material	
Housing	Polyamide (PA)
Ambient conditions	
Service temperature	-40 ... 90 °C (-40 ... 194 °F)
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	Ex II 2 G Ex de IIC Gb
International approvals	
IECEx approval	IECEx CML 16.0114U
Conformity	
Degree of protection	EN 60529
Usage category	IEC / EN 60947
CE marking	0102
General information	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.

Contact Blocks - Dimensions

Mounting	External dimension [mm]			Mounting holes [mm]			Mounting brackets [mm]	DIN mounting rail receptacle [mm]	Mass [g]	Enclosure type
	A	B	C	G	H	Diam. J	N	G3		
base-mounted	63	74	58.6	52	58	4.2	8	35.6	165	LC*

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Control Switches, 4 Pole Rotary Switching Blocks, for use with LCP* and LCS*

Combination of 4 Pole Rotary Switching Blocks and Actuator Heads

Switching configuration	Switching block	Contacts	Switching diagram see overview	Operator action	Labeling	Lockable	Actuator type
2 position changeover, left OFF	10	4x NO	(10)	L - L	0 - I	yes	T1
2 position changeover	11	2x NO / 2x NC	(11)	L - L	I - II	-	T2
2 position changeover	17	3x NO / 1x NC	(17)	L - L	I - II	-	T2
2 position changeover	18	1x NO / 3x NC	(18)	L - L	I - II	-	T2
3 position changeover, center OFF	12	4x NO	(12)	L - L - L	I - 0 - II	yes	T3
3 position changeover, center OFF	14	4x NO	(14)	L - L - L	I - 0 - II	yes	T3
3 position changeover, center OFF, both sides spring return	13	4x NO	(13)	S - L - S	I - 0 - II	yes	T3
3 position changeover	22	4x NO	(22)	L - L - L	I - 0 - II	-	T3
3 position changeover	23	4x NO	(23)	L - L - L	0 - I - II	-	T5
3 position changeover, right spring return	19	2x NO / 2x NC	(19)	L - L - S	0 - I - II	-	T5
3 position changeover, right spring return	16	3x NO / 1x NC	(16)	L - L - S	0 - I - II	-	T5
4 position changeover	15	3x NO / 1x NC	(15)	L - L - L - L	I - II - III - IV	-	T4
4 position changeover, right spring return	20	4x NO	(20)	L - L - L - S	I - II - III - IV	-	T4
4 position changeover	21	4x NO	(21)	L - L - L - L	I - II - III - IV	-	T4

Operator action: L = latching, S = spring return

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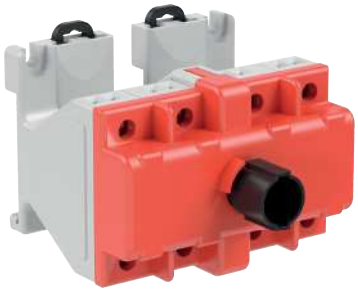
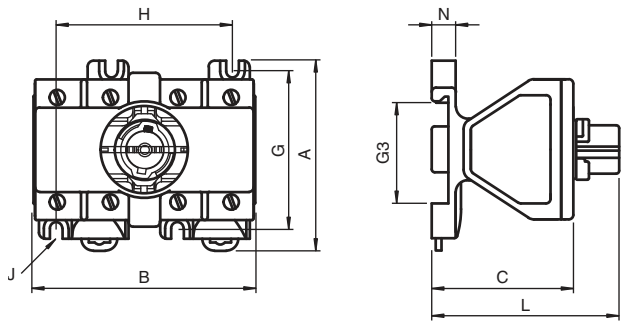
Control Switches, 4 Pole Rotary Switching Blocks, for use with LCP* and LCS*

Dimensions

actuator head



rotary switching block, base-mounted



dimensions

Switching Blocks - Technical Data

Electrical specifications	
Operating voltage	250 V max.
Operating current	16 A max.
Terminal capacity	2.5 mm²
Terminal torque	0.8 Nm
Usage category	AC12: 12 ... 250 V AC - 16 A AC15: 12 ... 250 V AC - 10 A DC13: 12 ... 110 V DC - 1 A DC13: 12 ... 24 V DC - 1 A
Mechanical specifications	
Mechanical life	1000000 switching operations
Degree of protection	IP20
Material	
Housing	Polyamide (PA)
Ambient conditions	
Service temperature	-40 ... 90 °C (-40 ... 194 °F)
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	Ex II 2 G Ex de IIC Gb
International approvals	
IECEx approval	IECEx CML 16.0114U
Conformity	
Degree of protection	EN 60529
Usage category	IEC / EN 60947
CE marking	0102
General information	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.

Switching Blocks - Dimensions

Mounting	External dimension [mm]			Mounting holes [mm]			Mounting brackets [mm]	DIN mounting rail receptacle [mm]	Mass [g]	Enclosure type
	A	B	C	G	H	Diam. J	N	G3		
base-mounted	63	74	72	52	58	4.2	8	35.6	171	LC*

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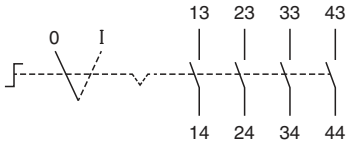
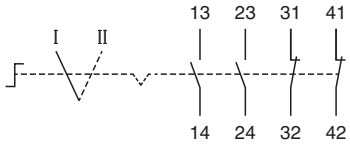
Control Switches, 4 Pole Rotary Switching Blocks, Switching diagrams

(10)



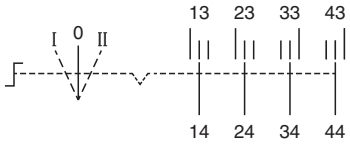
	13	23	33	43
0				
I	X	X	X	X
	14	24	34	44

(11)



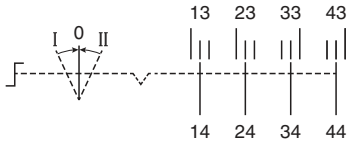
	13	23	31	41
I			X	X
II	X	X		
	14	24	32	42

(12)



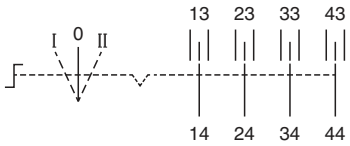
	13	23	33	43
I	X	X		
0				
II			X	X
	14	24	34	44

(13)



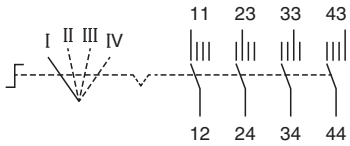
	13	23	33	43
I	X	X		
0				
II			X	X
	14	24	34	44

(14)



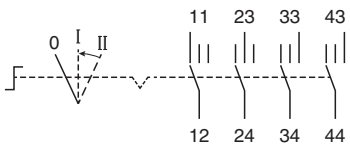
	13	23	33	43
I	X	X	X	X
0				
II	X	X	X	X
	14	24	34	44

(15)



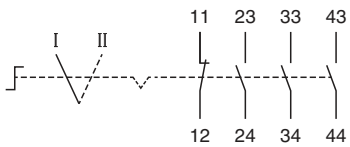
	11	23	33	43
I	X			
II		X		
III			X	
IV				X
	12	24	34	44

(16)



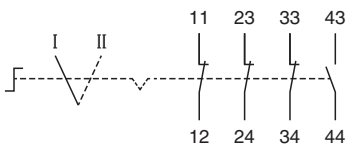
	11	23	33	43
0	X			
I		X		
II			X	X
	12	24	34	44

(17)



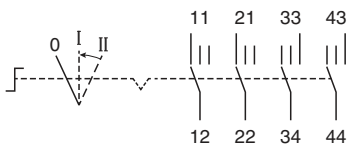
	11	23	33	43
I	X			
II		X	X	X
	12	24	34	44

(18)



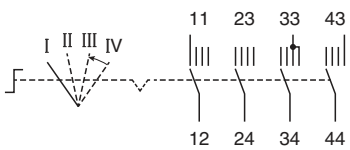
	11	23	33	43
I	X	X	X	
II				X
	12	24	34	44

(19)



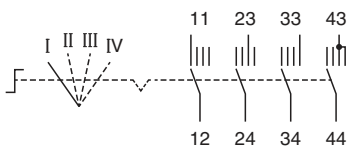
	11	21	33	43
0	X	X		
I				
II			X	X
	12	22	34	44

(20)



	11	23	33	43
I	X			
II				
III			X	
IV			X	X
	12	24	34	44

(21)



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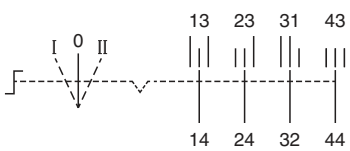
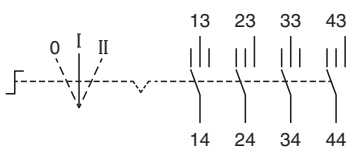
I	X			
II				
III		X		X
IV			X	X
	12	24	34	44

(22)



	13	23	31	43
I	X		X	
0			X	
II	X	X		
	14	24	32	44

(23)



	13	23	33	43
0				
I	X		X	
II		X		X
	14	24	34	44

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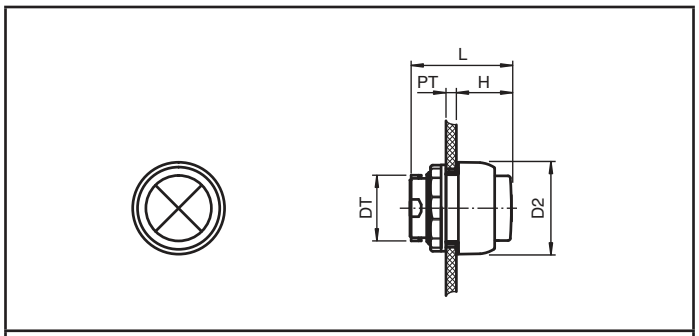
LED Indicators

LED Indicators Lenses

Type	Lens color	Image
CFP.LR	red	
CFP.LG	green	
CFP.LO	amber	
CFP.LW	white	
CFP.LB	blue	



CFP.L*

LED Heads - Technical Data

Mechanical specifications	
Degree of protection	IP66
Material	
Housing	Polyamide (PA)
Finish	inherent color black
Washer gasket	silicone
Ambient conditions	
Ambient temperature	-40 ... 55 °C (-40 ... 131 °F)
Service temperature	-40 ... 65 °C (-40 ... 149 °F)
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	Ex II 2 GD Ex e IIC Gb Ex tb IIIC Db
International approvals	
IECEx approval	IECEx CML 16.0114U
Conformity	
Degree of protection	EN 60529
CE marking	0102
General information	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.

LED Heads - Dimensions

Diameter [mm]	Panel wall thickness [mm]	Diameter thru-hole [mm]	Length outside enclosure [mm]	Total length [mm]	Mass [g]	Mounting	Enclosure type
D2	PT	DT	H	L			
39	1 ... 6	30.6	23.6	43	20	use with base-mounted and cover-mounted LED modules	LC* FXL*.CS GR.CS*

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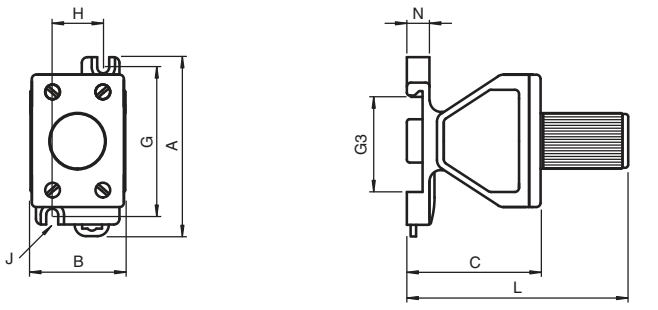
LED Indicators

LED Modules

Type	Mounting	Rated operating voltage [V AC/DC]	Image
CFP.NI	base-mounted	10 ... 28, Ex ia	
CFP.NE	base-mounted	10 ... 28	
CFP.L	base-mounted	20 ... 250	
CFP.P	base-mounted	250 ... 400	



base-mounted

LED Modules - Technical Data

Electrical specifications	
Operating voltage	400 V max.
Power consumption	2 W max.
Terminal capacity	2.5 mm²
Terminal torque	0.8 Nm
Mechanical specifications	
Degree of protection	IP20
Material	
Housing	Polyamide (PA)
Ambient conditions	
Service temperature	-40 ... 90 °C (-40 ... 194 °F)
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	Ex II 2 G Ex de IIC Gb
Intrinsically safe variants *.NI, *.GI	
Marking	Ex II 1 G Ex ia IIC Ga
Voltage U_i	28 V
Current I_i	93 mA
Power P_i	0.651 W
Internal capacitance C_i	0 µF
Internal inductance L_i	0 mH
International approvals	
IECEx approval	IECEx CML 16.0114U
Conformity	
Degree of protection	EN 60529
CE marking	0102
General information	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.

LED Modules - Dimensions

Mounting	External dimension [mm]				Mounting holes [mm]			Mounting brackets [mm]	DIN rail receptacle [mm]	Mass [g]	Enclosure type
	A	B	C	L	G	H	Diam. J	N	G3		
base-mounted	63	33.4	47	84	52	18	4.2	8	35.6	61	LC* GR.CS*

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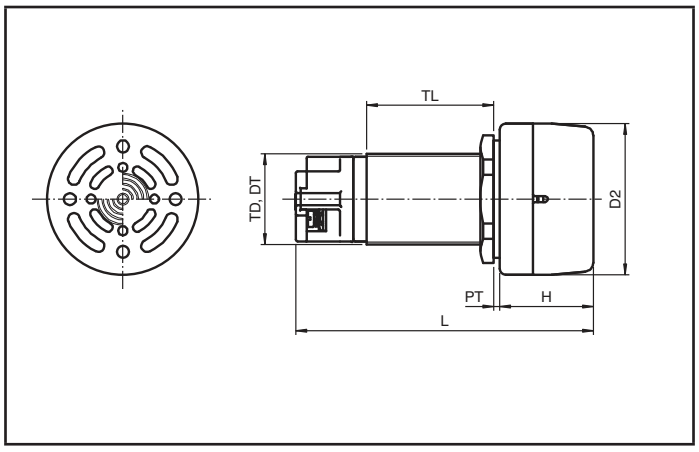
Buzzer

Buzzer Modules

Type	Function	Color	Rated operating voltage [V AC/DC]	Image
CFP. BUZRF1	flashing buzzer	red	10 ... 28	
CFP. BUZRF2	flashing buzzer	red	20 ... 250	
CFP. BUZKS1	buzzer	black	10 ... 28	
CFP. BUZKS2	buzzer	black	20 ... 250	



Buzzer - Technical Data

Electrical specifications	
Operating voltage	250 V max.
Power consumption	1 W max.
Terminal capacity	2.5 mm²
Terminal torque	0.8 Nm
Sound level	60 dB at 30 cm
Mechanical specifications	
Degree of protection	IP66
Material	
Housing	Polyamide (PA)
Ambient conditions	
Ambient temperature	-40 ... 55 °C (-40 ... 131 °F)
Service temperature	-40 ... 90 °C (-40 ... 194 °F)
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	Ex II 2 GD Ex e ib mb IIC Gb Ex ib tb IIIC Db
International approvals	
IECEx approval	IECEx CML 16.0114U
Conformity	
Degree of protection	EN 60529
CE marking	0102
General information	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.

Buzzer - Dimensions

Actuator head diameter [mm]	Panel wall thickness [mm]	Diameter thru-hole [mm]	Length outside enclosure [mm]	Total length [mm]	Thread size	Thread length [mm]	Mass [g]	Mounting	Enclosure type
D2	PT	DT	H	L	TD	TL			
50	1 ... 35	30.6	31	98.5	M30 x 1.5	42	125	cover-mounted	LC* GR.CS* FXL*.CS

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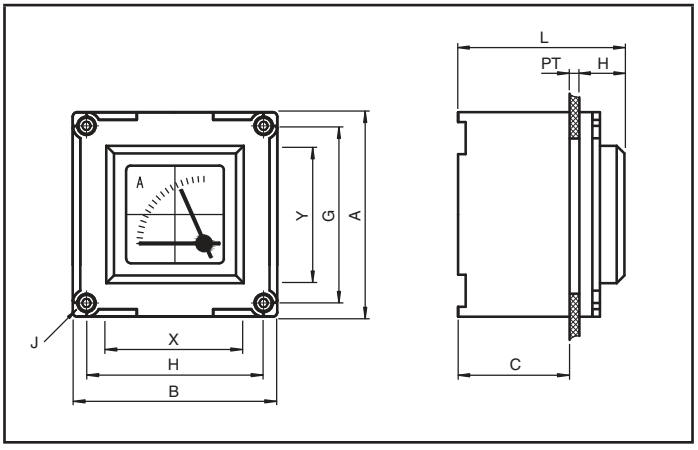
Ammeters

Ammeter Modules

Type	Rated operating current	Scales see table	Image
CFP.AA	0 ... 1 A	scale per specification	
CFP.AB	0 ... 5 A	scale per specification	
CFP.AE	0 ... 10 A	scale per specification	
CFP.AC	0 ... 20 mA	scale 0 ... 20 / 40 mA	
CFP.AD	4 ... 20 mA	scale 4 ... 20 / 40 mA	

Ammeter Scales

Scales	Type Code	Scales	Type Code
0 ... 1 / 5 A	SA	0 ... 150 / 750 A	SM
0 ... 2.5 / 12.5 A	SB	0 ... 200 / 1000 A	SN
0 ... 5 / 25 A	SC	0 ... 250 / 1250 A	SO
0 ... 10 / 50 A	SD	0 ... 300 / 1500 A	SP
0 ... 15 / 75 A	SE	0 ... 400 / 2000 A	SQ
0 ... 25 / 125 A	SF	0 ... 500 / 2500 A	SR
0 ... 30 / 150 A	SG	0 ... 600 / 3000 A	SS
0 ... 40 / 200 A	SH	0 ... 1000 / 5000 A	ST
0 ... 50 / 250 A	SI	Scale as per specification	SZ
0 ... 60 / 300 A	SJ		
0 ... 75 / 375 A	SK		
0 ... 100 / 500 A	SL		



Ammeter Modules - Technical Data

Electrical specifications	
Operating voltage	500 V AC
Operating current	10 A max.
Accuracy class	1.5
Terminal capacity	2.5 mm²
Terminal torque	0.8 Nm
Mechanical specifications	
Degree of protection	IP66
Mounting	Meter window mounting kit
Material	
Housing	Polyamide (PA)
Ambient conditions	
Service temperature	-40 ... 95 °C (-40 ... 203 °F)
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	Ex II 2 G Ex e IIC Gb
International approvals	
IECEx approval	IECEx CML 16.0114U
Conformity	
Degree of protection	EN 60529
CE marking	0102
General information	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.

Meter Window Mounting Kits

Type	Window including	Enclosure type
CFP.WB	base mounting kit	LC*, GR.CS*
CFP.WL	cover mounting kit	FXL*.CS

Ammeter Modules - Dimensions

External dimension [mm]				Viewing window [mm]		Panel wall thickness [mm]	Mounting holes [mm]			Mass [g]	Enclosure type
A	B	C	L	X	Y	PT	G	H	Diam. J		
70	70	59	75	54	50	1 ... 6	63	63	3.5	186	LC*, FXL*.CS GR.CS

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Voltmeters

Voltmeter Modules

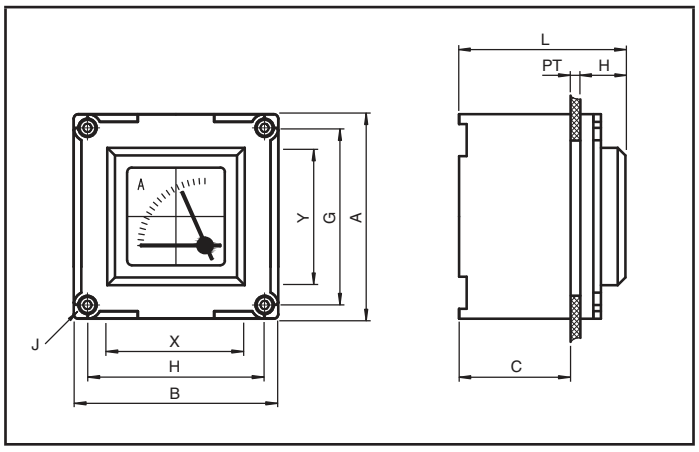
Type	Rated operating voltage	Image
CFP.V6	0 ... 10 V	
CFP.V1	0 ... 25 V	
CFP.V2	0 ... 40 V	
CFP.V7	0 ... 50 V	
CFP.V8	0 ... 100 V	
CFP.V9	0 ... 120 V	
CFP.V3	0 ... 150 V	
CFP.V4	0 ... 250 V	
CFP.V5	0 ... 500 V	

Voltmeter Scales

included in module

Voltmeter Modules - Technical Data

Electrical specifications	
Operating voltage	500 V AC
Accuracy class	1.5
Terminal capacity	2.5 mm²
Terminal torque	0.8 Nm
Mechanical specifications	
Degree of protection	IP66
Mounting	Meter window mounting kit
Material	
Housing	Polyamide (PA)
Ambient conditions	
Service temperature	-40 ... 95 °C (-40 ... 203 °F)
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	Ex II 2 G Ex e IIC Gb
International approvals	
IECEx approval	IECEx CML 16.0114U
Conformity	
Degree of protection	EN 60529
CE marking	0102
General information	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.



Meter Window Mounting Kits

Type	Window including	Enclosure type
CFP.WB	base mounting kit	LC*, GR.CS*
CFP.WL	cover mounting kit	FXL*.CS

Voltmeter Modules - Dimensions

External dimension [mm]				Viewing window [mm]		Panel wall thickness [mm]	Mounting holes [mm]			Mass [g]	Enclosure type
A	B	C	L	X	Y	PT	G	H	Diam. J		
70	70	59	75	54	50	1 ... 6	63	63	3.5	186	LC*, FXL*.CS GR.CS*

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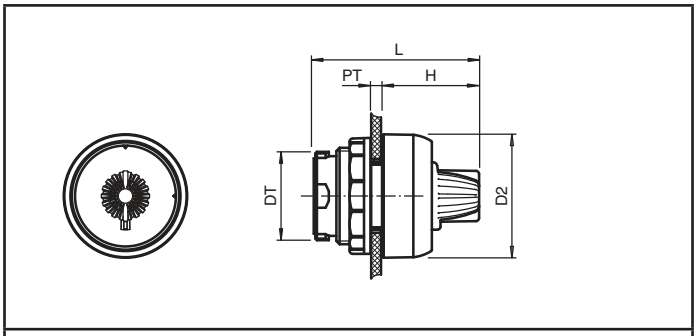
Potentiometers

Potentiometer Actuator Heads

Type	Enclosure type	Labeling	Image
CFP.R1	LC*	0 ... 10	



CFP.R*

Actuator Heads - Technical Data

Mechanical specifications	
Degree of protection	IP66
Material	
Housing	Polyamide (PA)
Finish	inherent color black
Washer gasket	silicone
Ambient conditions	
Ambient temperature	-40 ... 55 °C (-40 ... 131 °F)
Service temperature	-40 ... 65 °C (-40 ... 149 °F)
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	Ex II 2 GD Ex e IIC Gb Ex tb IIIC Db
International approvals	
IECEx approval	IECEx CML 16.0114U
Conformity	
Degree of protection	EN 60529
CE marking	0102
General information	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.

Potentiometer Actuator Heads - Dimensions

Actuator head diameter [mm]	Panel wall thickness [mm]	Diameter thru-hole [mm]	Length outside enclosure [mm]	Total length [mm]	Mass [g]	Mounting
D2	PT	DT	H	L		
39	1 ... 6	30.6	30.5	50.5	27	use with base-mounted and cover-mounted potentiometer modules

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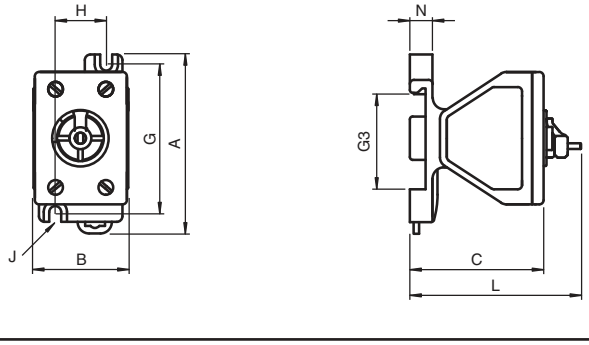
Potentiometers

Potentiometer Modules

Type	Mounting	Range [kΩ]	Image
CFP.3	base-mounted	0 ... 0.5	
CFP.1	base-mounted	0 ... 1	
CFP.2	base-mounted	0 ... 2	
CFP.5	base-mounted	0 ... 5	
CFP.0	base-mounted	0 ... 10	



base-mounted

Potentiometer Modules - Technical Data

Electrical specifications	
Operating voltage	200 V max.
Power consumption	0.1 W max.
Terminal capacity	2.5 mm²
Terminal torque	0.8 Nm
Mechanical specifications	
Degree of protection	IP20
Material	
Housing	Polyamide (PA)
Ambient conditions	
Service temperature	-55 ... 85 °C (-67 ... 185 °F)
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	Ex II 2 G Ex de IIC Gb
International approvals	
IECEx approval	IECEx CML 16.0114U
Conformity	
Degree of protection	EN 60529
CE marking	0575
General information	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.

Potentiometer Modules - Dimensions

Mounting	External dimension [mm]				Mounting holes [mm]			Mounting brackets [mm]	DIN rail receptacle [mm]	Mass [g]	Enclosure type
	A	B	C	L	G	H	Diam. J	N	G3		
base-mounted	63	34	50	60	52	18	4.2	8	35.6	69	LC* GR.CS*

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Operating Elements Accessories

Accessory

Type	Description	Image
CFP.BK	Blanking plug	
CFP.ZS	Small label holder with printed label as per specification	
CFP.ZL	Large label holder with printed label as per specification	
CFP.ZEP	Emergency stop label, yellow, round	
CFP.ZFP	Emergency stop label, yellow, rectangular	
CFP.ZA	Protective lid, plastic	
CFP.ZH	Protective shroud for double pushbutton, stainless steel, padlockable	
CFP.ZB	Protective shroud for small actuators, plastic, padlockable	

Accessory

Type	Description	Image
CFP.ZJ	Protective shroud for pushbutton continuous operation, plastic, padlockable	
CFP.ZP	Emergency stop shroud, plastic, padlockable	
CFP.ZC	Protective shroud, stainless steel	
CFP.ZD	Protective shroud, stainless steel, padlockable	
CFP.TP	Locknut spanner, plastic	

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